

REMARKS

In the Office Action the Examiner rejected claims 1-22 under 35 U.S.C. 103 as being obvious. Claims 1-22 remain in the application.

The Examiner's rejection was based on Zheng. The Examiner viewed Zheng as teaching virtually all of the elements of the claims. The elements missing were the range of dielectric constants and the ratio of reactants. Applicants respectfully disagree with this interpretation of Zheng. Zheng is primarily directed to using an electron beam treatment of a low dielectric constant (k) film to improve its characteristics. Zheng describes using a cyclic organosilicon compound for the low k dielectric deposition followed by the electron beam treatment of it. After this treatment of the low k film, a capping layer is formed over the low k film using dimethylsilane, which is linear organosilicon compound, as the precursor. Zheng carefully defines at paragraphs 0022, 0023, 0024, and 0025 two different categories of organosilicon compounds, cyclic and linear. Zheng thus describes that not only are the low k film and the capping film deposited by different precursors, but that these different precursors are in different categories.

Claim 1, for example, differs from Zheng in that the claimed second dielectric layer and the claimed low K dielectric layer are deposited using "the silicon precursor." Note also that claim requires that CMP removes at least a portion of the second dielectric layer and that the void passes through the second dielectric layer. Claim 5, for example, differs from Zheng by "maintaining continuous plasma" in forming the low K and second dielectric layers. Zheng breaks plasma for the electron beam treatment. Claim 21, for example, differs in the silicon to carbon ratio for the second dielectric layer. Claim 22, for example, differs as in the case of claim 1 by using the silicon precursor for both the low K and second dielectric layers. Note also as in claim 1 that CMP removes at least some of the second dielectric layer and that the void passes through the second dielectric layer. Accordingly, applicants submit that the rejection is improper and that the claims are patentably distinct over Zheng.

No amendment made was related to the statutory requirements of patentability unless expressly stated herein. No amendment made was for the purpose of narrowing the scope of any claim, unless Applicant has argued herein that such amendment was made to distinguish over a particular reference or combination of references.

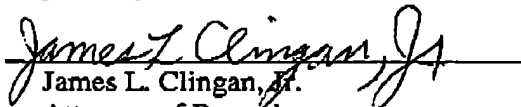
Applicants believe the application is in condition for allowance which action is respectfully solicited. Please contact the below-signed if there are any issues regarding this communication or otherwise concerning the current application.

SEND CORRESPONDENCE TO:

Freescall Semiconductor, Inc.
Law Department

Customer Number: 23125

Respectfully submitted,

By: 
James L. Clingan, Jr.
Attorney of Record
Reg. No.: 30,163
Telephone: (512) 996-6839
Fax No.: (512) 996-6854
Email: Jim.Clingan@Freescall.com